

or its prodrug; or a pharmaceutically acceptable salt or solvate thereof, wherein:

X<sup>1</sup> is an optionally substituted aryl, optionally substituted aralkyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, or optionally substituted non-aromatic heterocyclic group;

Y<sup>1</sup> is -NR<sup>A</sup>CO-(CH<sub>2</sub>)<sub>0-2</sub>-, -NR<sup>A</sup>CO-(CH<sub>2</sub>)<sub>0-2</sub>-W-, -NR<sup>A</sup>CO-CH=CH-,  
-W-(CH<sub>2</sub>)<sub>1-5</sub>-NR<sup>A</sup>CO-(CH<sub>2</sub>)<sub>0-2</sub>-, -W-(CH<sub>2</sub>)<sub>1-5</sub>-CONR<sup>A</sup>-(CH<sub>2</sub>)<sub>0-2</sub>-, -CONR<sup>A</sup>-(CH<sub>2</sub>)<sub>0-2</sub>-,  
-(CH<sub>2</sub>)<sub>0-5</sub>-NR<sup>A</sup>-SO<sub>2</sub>-(CH<sub>2</sub>)<sub>0-5</sub>-, -(CH<sub>2</sub>)<sub>0-5</sub>-SO<sub>2</sub>-NR<sup>A</sup>-(CH<sub>2</sub>)<sub>0-5</sub>-, -NR<sup>A</sup>-(CH<sub>2</sub>)<sub>0-2</sub>-,  
-NR<sup>A</sup>-CO-NR<sup>A</sup>-, -NR<sup>A</sup>-CS-NR<sup>A</sup>-, -N=C(-SR<sup>A</sup>)-NR<sup>A</sup>-, -NR<sup>A</sup>CSNR<sup>A</sup>CO-,  
-N=C(-SR<sup>A</sup>)-NR<sup>A</sup>CO-, -NR<sup>A</sup>-(CH<sub>2</sub>)<sub>1-2</sub>-NR<sup>A</sup>-CO-, -NR<sup>A</sup>CONR<sup>A</sup>NR<sup>F</sup>CO-, or  
-N=C(-NR<sup>A</sup>R<sup>A</sup>)-NR<sup>A</sup>-CO-;

wherein R<sup>A</sup> is each independently a hydrogen atom, optionally substituted lower alkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted heteroaryl, or optionally substituted heteroarylalkyl;

R<sup>F</sup> is a hydrogen atom or optionally substituted aryl;

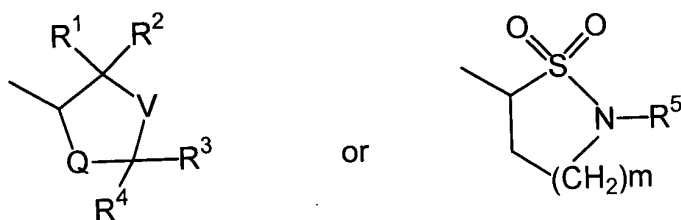
W is an oxygen atom or a sulfur atom;

Z<sup>1</sup> is an optionally substituted arylene, optionally substituted heteroarylene, optionally substituted non-aromatic heterocycle-diyl, or optionally substituted cycloalkyl-diyl;

A<sup>1</sup> is a ring represented by the formula:

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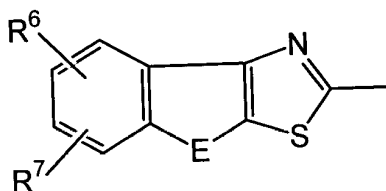


wherein  $R^1$  and  $R^2$  are both hydrogen atoms or taken together may form an oxygen atom or a sulfur atom;  $R^3$  and  $R^4$  are both hydrogen atoms or taken together may form an oxygen atom or a sulfur atom;  $R^5$  is a hydrogen atom or lower alkyl; Q and V are each independently -O-, -S-, -CH<sub>2</sub>-, or -NR<sup>B</sup>- wherein R<sup>B</sup> is a hydrogen atom or lower alkyl;

m is 1, 2, or 3; and

a broken line ( --- ) represents the presence or absence of a bond.

35. A method according to claim 34, wherein X<sup>1</sup> is an optionally substituted 5-member heteroaryl or a group represented by the formula:

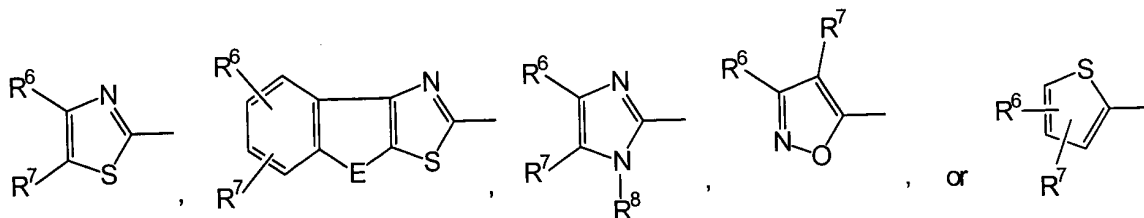


wherein E is -(CH<sub>2</sub>)<sub>1-3</sub>-, -O-CH<sub>2</sub>-, or -S-CH<sub>2</sub>-; and R<sup>6</sup> and R<sup>7</sup> are each independently a hydrogen atom, optionally substituted lower alkyl, carboxy, lower alkyloxycarbonyl, optionally substituted aminocarbonyl, optionally substituted thienyl, or optionally substituted phenyl.

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36. A method according to claim 34, wherein  $X^1$  is a group represented by the formula:

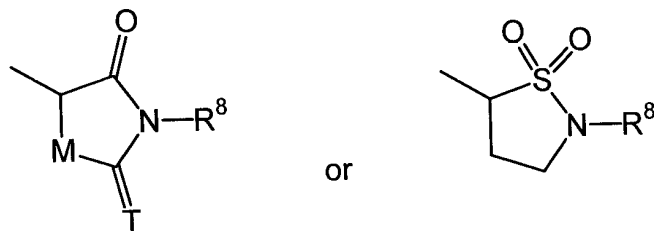


wherein E is  $-(CH_2)_{1-3}-$ ,  $-O-CH_2-$ , or  $-S-CH_2-$ ;  $R^6$  and  $R^7$  are each independently a hydrogen atom, optionally substituted lower alkyl, carboxy, lower alkyloxycarbonyl, optionally substituted aminocarbonyl, optionally substituted thienyl, or optionally substituted phenyl; and  $R^8$  is a hydrogen atom or lower alkyl.

37. A method according to any one of claims 34 to 36, wherein  $Y^1$  is  $-NHCO-$ ,  $-CONH-$ ,  $-NHCH_2-$ , or  $-NHSO_2-$ .

38. A method according to any one of claims 34 to 36, wherein  $Z^1$  is 1,4-phenylene.

39. A method according to any one of claims 34 to 36, wherein  $A^1$  is a ring represented by the formula:



wherein  $R^8$  is a hydrogen atom or lower alkyl; M is  $-S-$ ,  $-O-$ ,  $-CH_2-$ , or  $-N(R^c)-$ , wherein  $R^c$  is a hydrogen atom or lower alkyl;

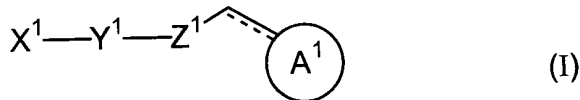
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and T is an oxygen atom or a sulfur atom.

40. A method according to any one of claims 34 to 36, wherein the broken line represents the presence of a bond.

✓ 41. A method of treating or preventing hemopathy in a subject having reduced platelet count, comprising administering to said subject a compound represented by the formula (I):



or its prodrug; or a pharmaceutically acceptable salt or solvate thereof, wherein:

$X^1$  is an optionally substituted aryl, optionally substituted aralkyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, or optionally substituted non-aromatic heterocyclic group;

$Y^1$  is  $-NR^A\text{CO}-(\text{CH}_2)_{0-2}-$ ,  $-NR^A\text{CO}-(\text{CH}_2)_{0-2}-W-$ ,  $-NR^A\text{CO}-\text{CH}=\text{CH}-$ ,  
 $-W-(\text{CH}_2)_{1-5}-NR^A\text{CO}-(\text{CH}_2)_{0-2}-$ ,  $-W-(\text{CH}_2)_{1-5}-\text{CONR}^A-(\text{CH}_2)_{0-2}-$ ,  $-\text{CONR}^A-(\text{CH}_2)_{0-2}-$ ,  
 $-(\text{CH}_2)_{0-5}-NR^A-\text{SO}_2-(\text{CH}_2)_{0-5}-$ ,  $-(\text{CH}_2)_{0-5}-\text{SO}_2-NR^A-(\text{CH}_2)_{0-5}-$ ,  $-NR^A-(\text{CH}_2)_{0-2}-$ ,  
 $-NR^A-\text{CO}-NR^A-$ ,  $-NR^A-\text{CS}-NR^A-$ ,  $-\text{N}=\text{C}(-\text{SR}^A)-NR^A-$ ,  $-NR^A\text{CSNR}^A\text{CO}-$ ,  
 $-\text{N}=\text{C}(-\text{SR}^A)-NR^A\text{CO}-$ ,  $-NR^A-(\text{CH}_2)_{1-2}-NR^A-\text{CO}-$ ,  $-NR^A\text{CONR}^A\text{NR}^F\text{CO}-$ , or  
 $-\text{N}=\text{C}(-\text{NR}^A\text{R}^A)-NR^A-\text{CO}-$ ;

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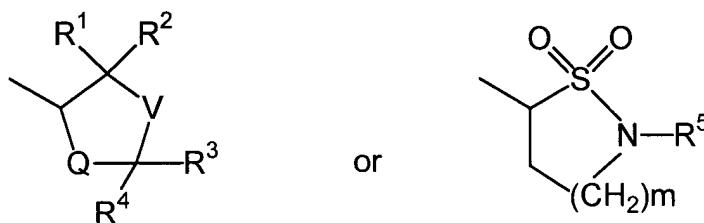
wherein each  $R^A$  is each independently a hydrogen atom, optionally substituted lower alkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted heteroaryl, or optionally substituted heteroarylalkyl;

$R^F$  is a hydrogen atom or optionally substituted aryl;

W is an oxygen atom or a sulfur atom;

$Z^1$  is an optionally substituted arylene, optionally substituted heteroarylene, optionally substituted non-aromatic heterocycle-diyl, or optionally substituted cycloalkyl-diyl;

$A^1$  is a ring represented by the formula:

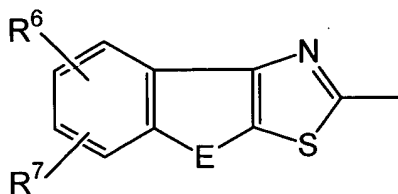


wherein  $R^1$  and  $R^2$  are both hydrogen atoms or taken together may form an oxygen atom or a sulfur atom;  $R^3$  and  $R^4$  are both hydrogen atoms or taken together may form an oxygen atom or a sulfur atom;  $R^5$  is a hydrogen atom or lower alkyl; Q and V are each independently -O-, -S-, -CH<sub>2</sub>-, or -NR<sup>B</sup>- wherein  $R^B$  is a hydrogen atom or lower alkyl;

m is 1, 2, or 3; and

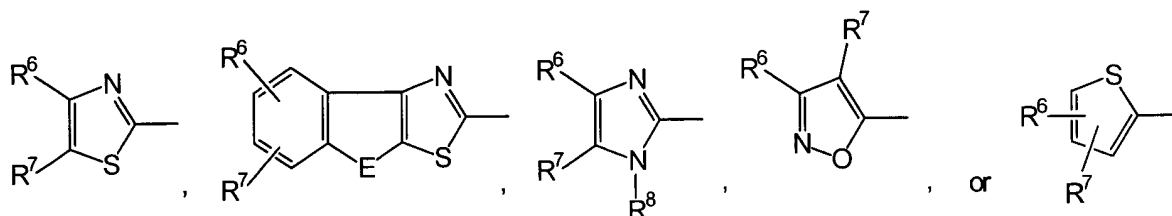
a broken line ( --- ) represents the presence or absence of a bond.

42. A method according to claim 41, wherein  $X^1$  is an optionally substituted 5-member heteroaryl or a group represented by the formula:



wherein E is  $-(CH_2)_{1-3}-$ ,  $-O-CH_2-$ , or  $-S-CH_2-$ ; and  $R^6$  and  $R^7$  are each independently a hydrogen atom, optionally substituted lower alkyl, carboxy, lower alkyloxycarbonyl, optionally substituted aminocarbonyl, optionally substituted thienyl, or optionally substituted phenyl.

43. A method according to claim 41, wherein  $X^1$  is a group represented by the formula:



wherein E is  $-(CH_2)_{1-3}-$ ,  $-O-CH_2-$ , or  $-S-CH_2-$ ;  $R^6$  and  $R^7$  are each independently a hydrogen atom, optionally substituted lower alkyl, carboxy, lower alkyloxycarbonyl, optionally substituted aminocarbonyl, optionally substituted thienyl, or optionally substituted phenyl; and  $R^8$  is a hydrogen atom or lower alkyl.

44. A method of modifying platelet production by administering to a subject in need thereof a compound represented by the formula (I):

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or its prodrug; or a pharmaceutically acceptable salt or solvate thereof, wherein:

X<sup>1</sup> is an optionally substituted aryl, optionally substituted aralkyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, or optionally substituted non-aromatic heterocyclic group;

Y<sup>1</sup> is -NR<sup>A</sup>CO-(CH<sub>2</sub>)<sub>0-2</sub>-, -NR<sup>A</sup>CO-(CH<sub>2</sub>)<sub>0-2</sub>-W-, -NR<sup>A</sup>CO-CH=CH-,  
-W-(CH<sub>2</sub>)<sub>1-5</sub>-NR<sup>A</sup>CO-(CH<sub>2</sub>)<sub>0-2</sub>-, -W-(CH<sub>2</sub>)<sub>1-5</sub>-CONR<sup>A</sup>-(CH<sub>2</sub>)<sub>0-2</sub>-, -CONR<sup>A</sup>-(CH<sub>2</sub>)<sub>0-2</sub>-,  
-(CH<sub>2</sub>)<sub>0-5</sub>-NR<sup>A</sup>-SO<sub>2</sub>-(CH<sub>2</sub>)<sub>0-5</sub>-, -(CH<sub>2</sub>)<sub>0-5</sub>-SO<sub>2</sub>-NR<sup>A</sup>-(CH<sub>2</sub>)<sub>0-5</sub>-, -NR<sup>A</sup>-(CH<sub>2</sub>)<sub>0-2</sub>-,  
-NR<sup>A</sup>-CO-NR<sup>A</sup>-, -NR<sup>A</sup>-CS-NR<sup>A</sup>-, -N=C(-SR<sup>A</sup>)-NR<sup>A</sup>-, -NR<sup>A</sup>CSNR<sup>A</sup>CO-,  
-N=C(-SR<sup>A</sup>)-NR<sup>A</sup>CO-, -NR<sup>A</sup>-(CH<sub>2</sub>)<sub>1-2</sub>-NR<sup>A</sup>-CO-, -NR<sup>A</sup>CONR<sup>A</sup>NR<sup>F</sup>CO-, or  
-N=C(-NR<sup>A</sup>R<sup>A</sup>)-NR<sup>A</sup>-CO-;

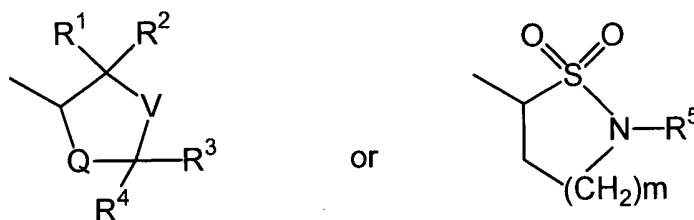
wherein R<sup>A</sup> is each independently a hydrogen atom, optionally substituted lower alkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted heteroaryl, or optionally substituted heteroarylalkyl;

R<sup>F</sup> is a hydrogen atom or optionally substituted aryl;

W is an oxygen atom or a sulfur atom;

Z<sup>1</sup> is an optionally substituted arylene, optionally substituted heteroarylene, optionally substituted non-aromatic heterocycle-diyl, or optionally substituted cycloalkyl-diyl;

$A^1$  is a ring represented by the formula:

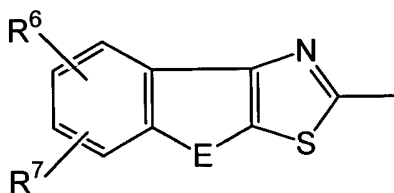


wherein R<sup>1</sup> and R<sup>2</sup> are both hydrogen atoms or taken together may form an oxygen atom or a sulfur atom; R<sup>3</sup> and R<sup>4</sup> are both hydrogen atoms or taken together may form an oxygen atom or a sulfur atom; R<sup>5</sup> is a hydrogen atom or lower alkyl; Q and V are each independently -O-, -S-, -CH<sub>2</sub>-, or -NR<sup>B</sup>- wherein R<sup>B</sup> is a hydrogen atom or lower alkyl;

m is 1, 2, or 3; and

a broken line ( --- ) represents the presence or absence of a bond.

45. A method according to claim 44, wherein X<sup>1</sup> is an optionally substituted 5-member heteroaryl or a group represented by the formula:



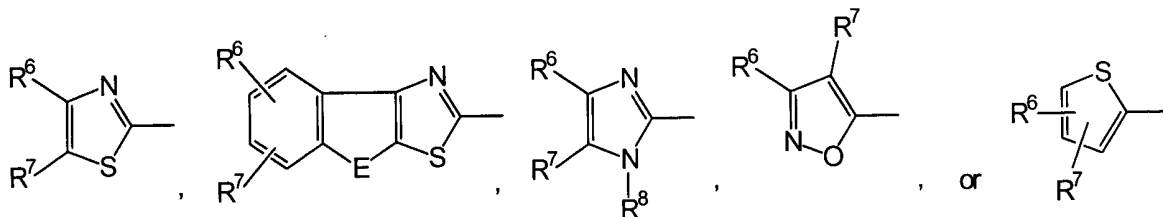
wherein E is -(CH<sub>2</sub>)<sub>1-3</sub>-, -O-CH<sub>2</sub>-, or -S-CH<sub>2</sub>-; and R<sup>6</sup> and R<sup>7</sup> are each independently a hydrogen atom, optionally substituted lower alkyl, carboxy, lower alkyloxycarbonyl, optionally substituted aminocarbonyl, optionally substituted thienyl, or optionally substituted phenyl.

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46. A method according to claim 44, wherein  $X^1$  is a group represented by the formula:



wherein E is  $-(CH_2)_{1-3}-$ ,  $-O-CH_2-$ , or  $-S-CH_2-$ ;  $R^6$  and  $R^7$  are each independently a hydrogen atom, optionally substituted lower alkyl, carboxy, lower alkyloxycarbonyl, optionally substituted aminocarbonyl, optionally substituted thienyl, or optionally substituted phenyl; and  $R^8$  is a hydrogen atom or lower alkyl.

47. A method of treating hemopathy in a subject in need thereof and having a reduced platelet count, comprising administering to said subject a compound represented by the formula (I):



or its prodrug; or a pharmaceutically acceptable salt or solvate thereof, wherein:

$X^1$  is an optionally substituted aryl, optionally substituted aralkyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, or optionally substituted non-aromatic heterocyclic group;

$Y^1$  is  $-NR^A CO-(CH_2)_{0-2}-$ ,  $-NR^A CO-(CH_2)_{0-2}-W-$ ,  $-NR^A CO-CH=CH-$ ,  $-W-(CH_2)_{1-5}-NR^A CO-(CH_2)_{0-2}-$ ,  $-W-(CH_2)_{1-5}-CONR^A-(CH_2)_{0-2}-$ ,  $-CONR^A-(CH_2)_{0-2}-$ ,

$-(CH_2)_{0-5}-NR^A-SO_2-(CH_2)_{0-5}-$ ,  $-(CH_2)_{0-5}-SO_2-NR^A-(CH_2)_{0-5}-$ ,  $-NR^A-(CH_2)_{0-2}-$ ,  
 $-NR^A-CO-NR^A-$ ,  $-NR^A-CS-NR^A-$ ,  $-N=C(-SR^A)-NR^A-$ ,  $-NR^A-CSNR^ACO-$ ,  
 $-N=C(-SR^A)-NR^ACO-$ ,  $-NR^A-(CH_2)_{1-2}-NR^A-CO-$ ,  $-NR^ACONR^ANR^FCO-$ , or  
 $-N=C(-NR^AR^A)-NR^A-CO-$ ;

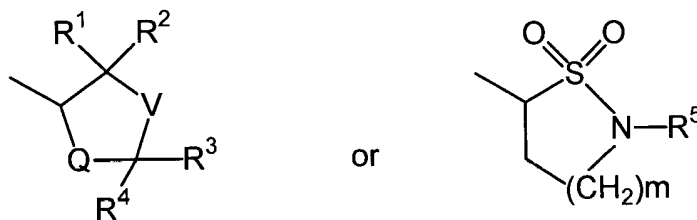
wherein  $R^A$  is each independently a hydrogen atom, optionally substituted lower alkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted heteroaryl, or optionally substituted heteroarylalkyl;

$R^F$  is a hydrogen atom or optionally substituted aryl;

W is an oxygen atom or a sulfur atom;

$Z^1$  is an optionally substituted arylene, optionally substituted heteroarylene, optionally substituted non-aromatic heterocycle-diyl, or optionally substituted cycloalkyl-diyl;

$A^1$  is a ring represented by the formula:



wherein  $R^1$  and  $R^2$  are both hydrogen atoms or taken together may form an oxygen atom or a sulfur atom;  $R^3$  and  $R^4$  are both hydrogen atoms or taken together may form an oxygen atom or a sulfur atom;  $R^5$  is a hydrogen atom or lower alkyl; Q and V are each independently  $-O-$ ,  $-S-$ ,  $-CH_2-$ , or  $-NR^B-$  wherein  $R^B$  is a hydrogen atom or lower alkyl;

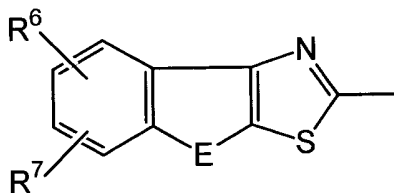
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m is 1, 2, or 3; and

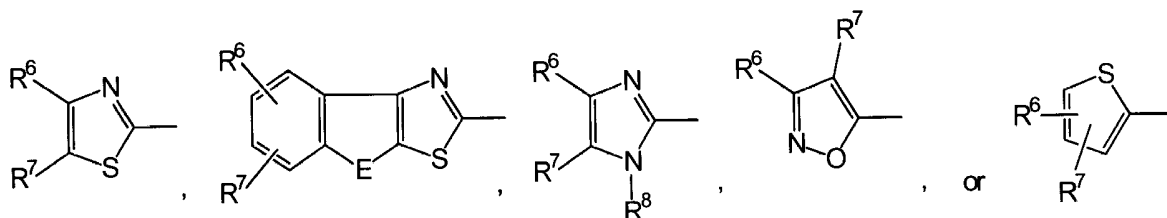
a broken line ( --- ) represents the presence or absence of a bond.

48. A method according to claim 47, wherein  $X^1$  is an optionally substituted 5-member heteroaryl or a group represented by the formula:



wherein E is  $-(CH_2)_{1-3}-$ ,  $-O-CH_2-$ , or  $-S-CH_2-$ ; and  $R^6$  and  $R^7$  are each independently a hydrogen atom, optionally substituted lower alkyl, carboxy, lower alkyloxycarbonyl, optionally substituted aminocarbonyl, optionally substituted thienyl, or optionally substituted phenyl.

49. A method according to claim 47, wherein  $X^1$  is a group represented by the formula:



wherein E is  $-(CH_2)_{1-3}-$ ,  $-O-CH_2-$ , or  $-S-CH_2-$ ;  $R^6$  and  $R^7$  are each independently a hydrogen atom, optionally substituted lower alkyl, carboxy, lower alkyloxycarbonyl, optionally substituted aminocarbonyl, optionally substituted thienyl, or optionally substituted phenyl; and  $R^8$  is a hydrogen atom or lower alkyl.

50. A method for treating hemopathy in a mammal having a reduced platelet count, comprising administration to said mammal a pharmaceutically effective amount of a compound represented by the formula (I):



or its prodrug; or a pharmaceutically acceptable salt or solvate thereof, wherein:

X<sup>1</sup> is an optionally substituted aryl, optionally substituted aralkyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, or optionally substituted non-aromatic heterocyclic group;

Y<sup>1</sup> is -NR<sup>A</sup>CO-(CH<sub>2</sub>)<sub>0-2</sub>-, -NR<sup>A</sup>CO-(CH<sub>2</sub>)<sub>0-2</sub>-W-, -NR<sup>A</sup>CO-CH=CH-,  
-W-(CH<sub>2</sub>)<sub>1-5</sub>-NR<sup>A</sup>CO-(CH<sub>2</sub>)<sub>0-2</sub>-, -W-(CH<sub>2</sub>)<sub>1-5</sub>-CONR<sup>A</sup>-(CH<sub>2</sub>)<sub>0-2</sub>-, -CONR<sup>A</sup>-(CH<sub>2</sub>)<sub>0-2</sub>-,  
-(CH<sub>2</sub>)<sub>0-5</sub>-NR<sup>A</sup>-SO<sub>2</sub>-(CH<sub>2</sub>)<sub>0-5</sub>-, -(CH<sub>2</sub>)<sub>0-5</sub>-SO<sub>2</sub>-NR<sup>A</sup>-(CH<sub>2</sub>)<sub>0-5</sub>-, -NR<sup>A</sup>-(CH<sub>2</sub>)<sub>0-2</sub>-,  
-NR<sup>A</sup>-CO-NR<sup>A</sup>-, -NR<sup>A</sup>-CS-NR<sup>A</sup>-, -N=C(-SR<sup>A</sup>)-NR<sup>A</sup>-, -NR<sup>A</sup>CSNR<sup>A</sup>CO-,  
-N=C(-SR<sup>A</sup>)-NR<sup>A</sup>CO-, -NR<sup>A</sup>-(CH<sub>2</sub>)<sub>1-2</sub>-NR<sup>A</sup>-CO-, -NR<sup>A</sup>CONR<sup>A</sup>NR<sup>F</sup>CO-, or  
-N=C(-NR<sup>A</sup>R<sup>A</sup>)-NR<sup>A</sup>-CO-;

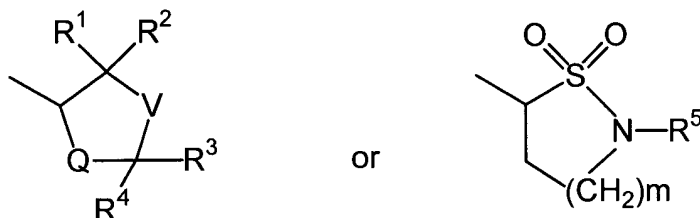
wherein R<sup>A</sup> is each independently a hydrogen atom, optionally substituted lower alkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted heteroaryl, or optionally substituted heteroarylalkyl;

R<sup>F</sup> is a hydrogen atom or optionally substituted aryl;

W is an oxygen atom or a sulfur atom;

Z<sup>1</sup> is an optionally substituted arylene, optionally substituted heteroarylene, optionally substituted non-aromatic heterocycle-diyl, or optionally substituted cycloalkyl-diyl;

A<sup>1</sup> is a ring represented by the formula:

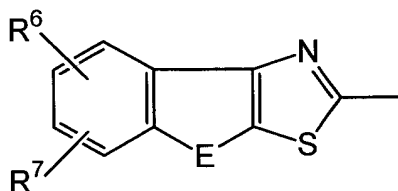


wherein R<sup>1</sup> and R<sup>2</sup> are both hydrogen atoms or taken together may form an oxygen atom or a sulfur atom; R<sup>3</sup> and R<sup>4</sup> are both hydrogen atoms or taken together may form an oxygen atom or a sulfur atom; R<sup>5</sup> is a hydrogen atom or lower alkyl; Q and V are each independently -O-, -S-, -CH<sub>2</sub>-, or -NR<sup>B</sup>- wherein R<sup>B</sup> is a hydrogen atom or lower alkyl;

m is 1, 2, or 3; and

a broken line ( --- ) represents the presence or absence of a bond.

51. A method according to claim 50, wherein X<sup>1</sup> is an optionally substituted 5-member heteroaryl or a group represented by the formula:

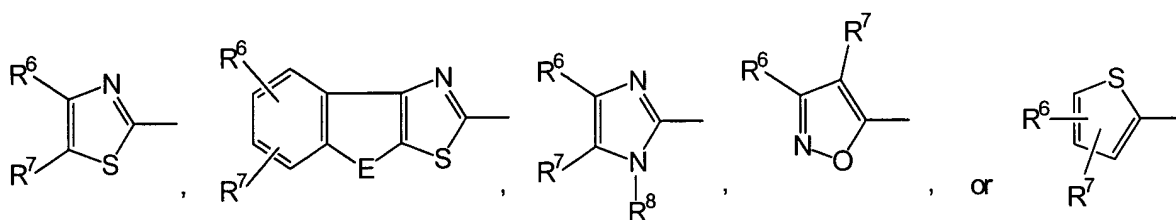


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wherein E is  $-(CH_2)_{1-3}-$ ,  $-O-CH_2-$ , or  $-S-CH_2-$ ; and  $R^6$  and  $R^7$  are each independently a hydrogen atom, optionally substituted lower alkyl, carboxy, lower alkyloxycarbonyl, optionally substituted aminocarbonyl, optionally substituted thienyl, or optionally substituted phenyl.

52. A method according to claim 50, wherein  $X^1$  is a group represented by the formula:



wherein E is  $-(CH_2)_{1-3}-$ ,  $-O-CH_2-$ , or  $-S-CH_2-$ ;  $R^6$  and  $R^7$  are each independently a hydrogen atom, optionally substituted lower alkyl, carboxy, lower alkyloxycarbonyl, optionally substituted aminocarbonyl, optionally substituted thienyl, or optionally substituted phenyl; and  $R^8$  is a hydrogen atom or lower alkyl.

✓ 53. A method for treating thrombocytopenia in a mammal having a reduced platelet count comprising administration to said mammal a pharmaceutically effective amount of a compound represented by the formula (I):



or its prodrug; or a pharmaceutically acceptable salt or solvate thereof, wherein:

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$X^1$  is an optionally substituted aryl, optionally substituted aralkyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, or optionally substituted non-aromatic heterocyclic group;

$Y^1$  is  $-NR^A CO-(CH_2)_{0-2}-$ ,  $-NR^A CO-(CH_2)_{0-2}-W-$ ,  $-NR^A CO-CH=CH-$ ,  
 $-W-(CH_2)_{1-5}-NR^A CO-(CH_2)_{0-2}-$ ,  $-W-(CH_2)_{1-5}-CONR^A-(CH_2)_{0-2}-$ ,  $-CONR^A-(CH_2)_{0-2}-$ ,  
 $-(CH_2)_{0-5}-NR^A-SO_2-(CH_2)_{0-5}-$ ,  $-(CH_2)_{0-5}-SO_2-NR^A-(CH_2)_{0-5}-$ ,  $-NR^A-(CH_2)_{0-2}-$ ,  
 $-NR^A-CO-NR^A-$ ,  $-NR^A-CS-NR^A-$ ,  $-N=C(-SR^A)-NR^A-$ ,  $-NR^A CSNR^A CO-$ ,  
 $-N=C(-SR^A)-NR^A CO-$ ,  $-NR^A-(CH_2)_{1-2}-NR^A-CO-$ ,  $-NR^A CONR^A NR^F CO-$ , or  
 $-N=C(-NR^A R^A)-NR^A-CO-$ ;

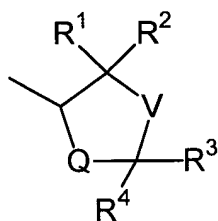
wherein  $R^A$  is each independently a hydrogen atom, optionally substituted lower alkyl, optionally substituted aryl, optionally substituted aralkyl, optionally substituted heteroaryl, or optionally substituted heteroarylalkyl;

$R^F$  is a hydrogen atom or optionally substituted aryl;

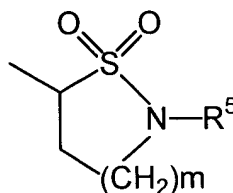
$W$  is an oxygen atom or a sulfur atom;

$Z^1$  is an optionally substituted arylene, optionally substituted heteroarylene, optionally substituted non-aromatic heterocycle-diyl, or optionally substituted cycloalkyl-diyl;

$A^1$  is a ring represented by the formula:



or

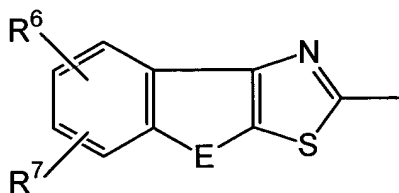


wherein  $R^1$  and  $R^2$  are both hydrogen atoms or taken together may form an oxygen atom or a sulfur atom;  $R^3$  and  $R^4$  are both hydrogen atoms or taken together may form an oxygen atom or a sulfur atom;  $R^5$  is a hydrogen atom or lower alkyl; Q and V are each independently -O-, -S-, -CH<sub>2</sub>-, or -NR<sup>B</sup>- wherein R<sup>B</sup> is a hydrogen atom or lower alkyl;

m is 1, 2, or 3; and

a broken line ( --- ) represents the presence or absence of a bond.

54. A method according to claim 53, wherein X<sup>1</sup> is an optionally substituted 5-member heteroaryl or a group represented by the formula:



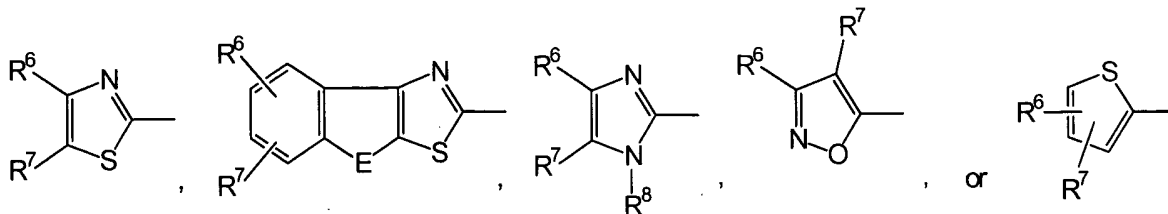
wherein E is -(CH<sub>2</sub>)<sub>1-3</sub>-, -O-CH<sub>2</sub>-, or -S-CH<sub>2</sub>-; and R<sup>6</sup> and R<sup>7</sup> are each independently a hydrogen atom, optionally substituted lower alkyl, carboxy, lower alkyloxycarbonyl, optionally substituted aminocarbonyl, optionally substituted thienyl, or optionally substituted phenyl.

55. A method according to claim 53, wherein X<sup>1</sup> is a group represented by the formula:

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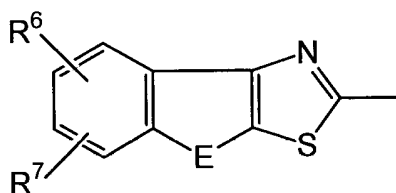


wherein E is  $-(CH_2)_{1-3}-$ ,  $-O-CH_2-$ , or  $-S-CH_2-$ ;  $R^6$  and  $R^7$  are each independently a hydrogen atom, optionally substituted lower alkyl, carboxy, lower alkyloxycarbonyl, optionally substituted aminocarbonyl, optionally substituted thienyl, or optionally substituted phenyl; and  $R^8$  is a hydrogen atom or lower alkyl.

56. A compound represented by the formula (II):



or its prodrug; or a pharmaceutically acceptable salt or solvate thereof, wherein  $X^2$  is an optionally substituted 5-member heteroaryl or a group represented by the formula:



wherein E is  $-(CH_2)_{1-3}-$ ,  $-O-CH_2-$ , or  $-S-CH_2-$ ;

$R^6$  and  $R^7$  are each independently a hydrogen atom, an optionally substituted lower alkyl, a carboxy, a lower alkyloxycarbonyl, an optionally substituted aminocarbonyl, an optionally substituted thienyl, or an optionally substituted phenyl;

$Y^2$  is  $-NR^GCO-(CH_2)_{0-2}-$ ,  $-NR^GCO-(CH_2)_{0-2}-W-$ ,  $-NR^GCO-CH=CH-$ ,  
 $-W-(CH_2)_{1-5}-NR^GCO-(CH_2)_{0-2}-$ ,  $-W-(CH_2)_{1-5}-CONR^G-(CH_2)_{0-2}-$ ,  $-CONR^G-(CH_2)_{0-2}-$ ,  
 $-(CH_2)_{0-5}-NR^G-SO_2-(CH_2)_{0-5}-$ ,  $-(CH_2)_{0-5}-SO_2-NR^G-(CH_2)_{0-5}-$ ,  $-NR^G-(CH_2)_{0-2}-$ ,  
 $-NR^G-CO-NR^G-$ ,  $-NR^G-CS-NR^G-$ ,  $-N=C(-SR^G)-NR^G-$ ,  $-NR^GCSNR^GCO-$ ,  
 $-N=C(-SR^G)-NR^GCO-$ ,  $-NR^G-(CH_2)_{1-2}-NR^G-CO-$ ,  $-NR^GCONR^G NR^F CO-$ , or  
 $-N=C(-NR^G R^G)-NR^G-CO-$ ,

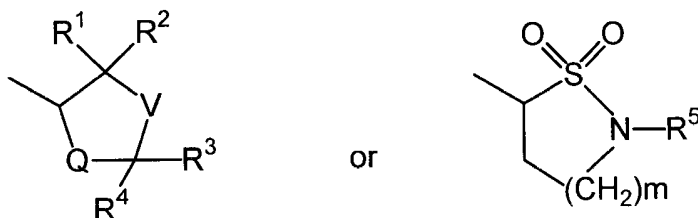
wherein  $R^G$  is each independently a hydrogen atom or an optionally substituted lower alkyl,

$R^F$  is a hydrogen atom or an optionally substituted aryl, and

$W$  is an oxygen atom or a sulfur atom;

$Z^2$  is an optionally substituted phenylene, an optionally substituted 2,5-pyridine-diyl, an optionally substituted 2,5-thiophene-diyl, or an optionally substituted 2,5-furan-diyl;

$A^2$  is a ring represented by the formula:



wherein  $R^1$  and  $R^2$  are both hydrogen atoms or taken together may form an oxygen atom or a sulfur atom,  $R^3$  and  $R^4$  are both hydrogen atoms or taken together may form an oxygen atom or a sulfur atom, and  $R^5$  is a hydrogen atom or lower alkyl;

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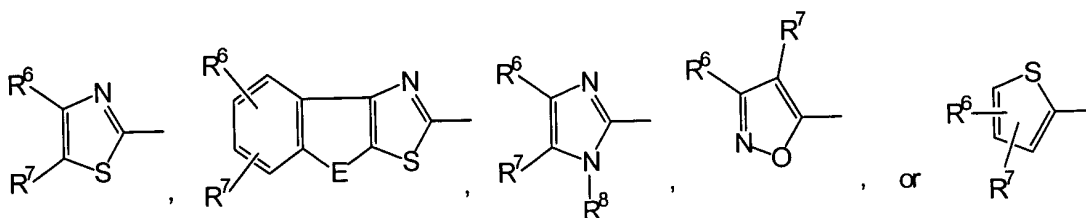
Q and V are each independently -O-, -S-, -CH<sub>2</sub>-, or -NR<sup>B</sup>-, wherein R<sup>B</sup> is a hydrogen atom or lower alkyl;

m is 1, 2, or 3; and

a broken line ( --- ) represents the presence or absence of a bond;

with the provisos that X<sup>2</sup> is not oxazole; and X<sup>2</sup> is not thienyl when Y<sup>2</sup> is -CONR<sup>G</sup>-(CH<sub>2</sub>)<sub>0-2</sub>-.

57. A compound according to claim 56, wherein X<sup>2</sup> is a group represented by the formula:



wherein E is -(CH<sub>2</sub>)<sub>1-3</sub>-, -O-CH<sub>2</sub>-, or -S-CH<sub>2</sub>-;

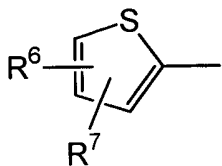
R<sup>6</sup> and R<sup>7</sup> are each independently a hydrogen atom, an optionally substituted lower alkyl, carboxy, a lower alkyloxycarbonyl, an optionally substituted aminocarbonyl, an optionally substituted thienyl, or an optionally substituted phenyl; and

R<sup>8</sup> is a hydrogen atom or lower alkyl,

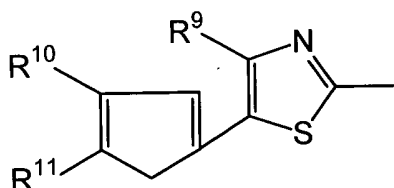
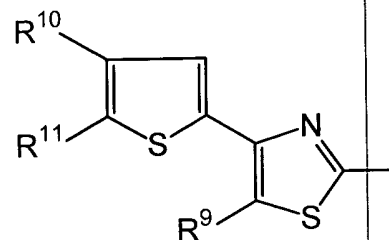
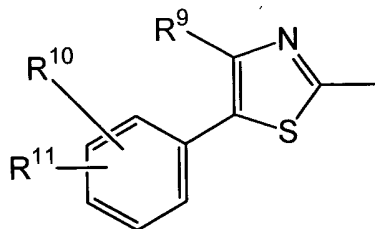
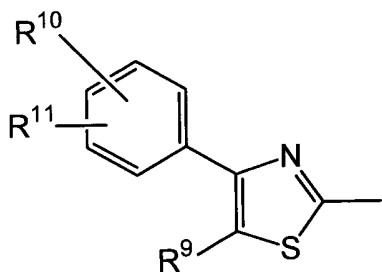
with the provisos that both R<sup>6</sup> and R<sup>7</sup> are not hydrogen atoms if X<sup>2</sup> is

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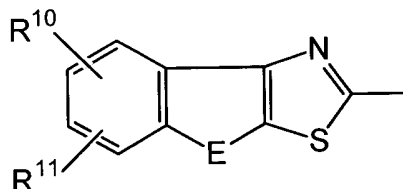
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58. A compound according to claim 56, wherein X<sup>2</sup> is a group represented by the formula:



, or



R<sup>9</sup> is a hydrogen atom, an optionally substituted lower alkyl, a carboxy, a lower alkyloxycarbonyl, or an optionally substituted aminocarbonyl;

R<sup>10</sup> and R<sup>11</sup> are each independently a hydrogen atom, halogen, carboxy, lower alkyloxycarbonyl, optionally substituted aminocarbonyl, nitro, or optionally substituted amino.

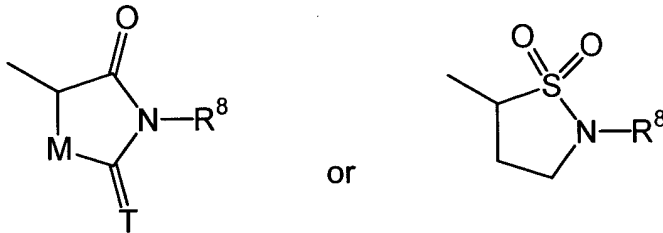
59. A compound according to any one of claims 56 to 58, wherein Y<sup>2</sup> is -NHCO-, -CONH-, -NHCH<sub>2</sub>-, or -NHSO<sub>2</sub>-.

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60. A compound according to any one of claims 56 to 58, wherein  $Z^2$  is 1,4-phenylene.

*Rule 1.126*  
*61*  
~~62~~ A compound of any one of claims 56 to 58, wherein  $A^2$  is a ring represented by the formula:

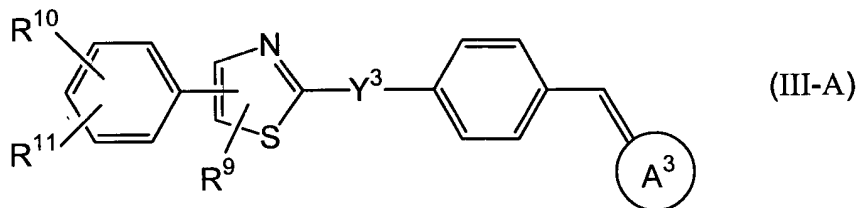


wherein  $R^8$  is a hydrogen atom or lower alkyl; M is -S-, -O-, -CH<sub>2</sub>-, or -N( $R^c$ )-, wherein  $R^c$  is a hydrogen atom or lower alkyl;

and T is an oxygen atom or a sulfur atom.

62. A compound according to any one of claims 56 to 58, wherein the broken line represents the presence of a bond.

✓ 63. A compound represented by the formula III-A:



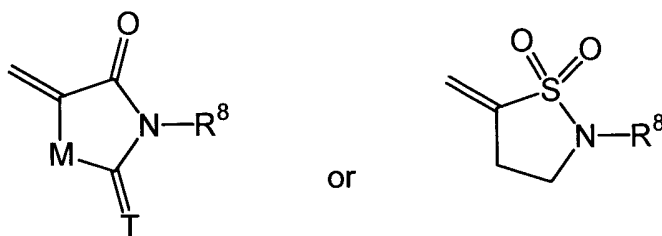
or its prodrug; or a pharmaceutically acceptable salt or solvate thereof, wherein

$R^9$  is a hydrogen atom, an optionally substituted lower alkyl, a carboxy, a lower alkyloxycarbonyl, or an optionally substituted aminocarbonyl;

$R^{10}$  and  $R^{11}$  are each independently a hydrogen atom, halogen, carboxy, lower alkyloxycarbonyl, optionally substituted aminocarbonyl, nitro, or optionally substituted amino;

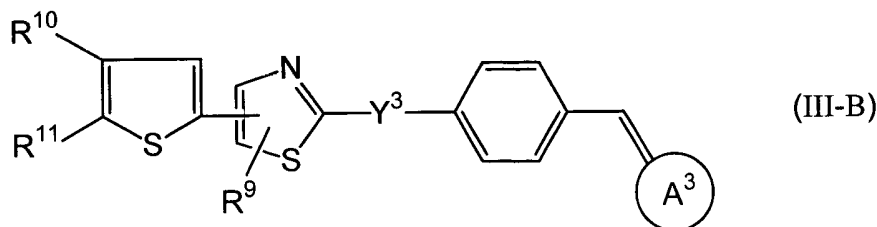
$Y^3$  is -NHCO- or -CONH-; and

$A^3$  is a ring represented by the formula:



wherein  $R^8$  is a hydrogen atom or lower alkyl; M is -S-, -O-, -CH<sub>2</sub>-, or -N( $R^c$ )-, wherein  $R^c$  is a hydrogen atom or lower alkyl; and T is an oxygen atom or a sulfur atom.

64. A compound represented by the formula III-B:



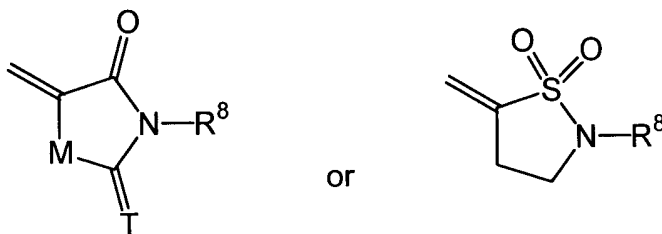
or its prodrug; or a pharmaceutically acceptable salt or solvate thereof, wherein

$R^9$  is a hydrogen atom, an optionally substituted lower alkyl, a carboxy, a lower alkyloxycarbonyl, or an optionally substituted aminocarbonyl;

$R^{10}$  and  $R^{11}$  are each independently a hydrogen atom, halogen, carboxy, lower alkyloxycarbonyl, optionally substituted aminocarbonyl, nitro, or optionally substituted amino;

$Y^3$  is -NHCO- or -CONH-; and

$A^3$  is a ring represented by the formula:



wherein  $R^8$  is a hydrogen atom or lower alkyl;  $M$  is -S-, -O-, -CH<sub>2</sub>-, or -N( $R^c$ )-, wherein  $R^c$  is a hydrogen atom or lower alkyl; and  $T$  is an oxygen atom or a sulfur atom.

65. A pharmaceutical composition containing at least one compound according to any one of claims 56 to 58, 63, or 64 as an active ingredient.

66. A pharmaceutical composition for exhibiting thrombopoietin agonism comprising as an active ingredient at least one compound according to any one of claims 56 to 58, 63, or 64.

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67. A pharmaceutical composition comprising at least one compound according to any one of claims 56 to 58, 63, or 64, wherein the compound is a platelet production modifier.

68. A method of treating hemopathy in a subject in need thereof and having a reduced platelet count, comprising administering to the subject at least one compound according to any one of claims 56 to 58, 63, or 64.

69. A method for treating hemopathy in a mammal having a reduced platelet count, comprising administration to said mammal a pharmaceutically effective amount of at least one compound according to any one of claims 56 to 58, 63 or 64 .

70. A thrombopoietin receptor agonist composition comprising as an active ingredient a compound of the formula (I):



or its prodrug; or a pharmaceutically acceptable salt or solvate thereof, wherein

X<sup>1</sup> is an optionally substituted aryl, optionally substituted aralkyl, optionally substituted heteroaryl, optionally substituted heteroarylalkyl, or optionally substituted non-aromatic heterocyclic group;

Y<sup>1</sup> is -NR<sup>A</sup>CO-(CH<sub>2</sub>)<sub>0-2</sub>-, -NR<sup>A</sup>CO-(CH<sub>2</sub>)<sub>0-2</sub>-W-, -NR<sup>A</sup>CO-CH=CH-,  
-W-(CH<sub>2</sub>)<sub>1-5</sub>-NR<sup>A</sup>CO-(CH<sub>2</sub>)<sub>0-2</sub>-, -W-(CH<sub>2</sub>)<sub>1-5</sub>-CONR<sup>A</sup>-(CH<sub>2</sub>)<sub>0-2</sub>-, -CONR<sup>A</sup>-(CH<sub>2</sub>)<sub>0-2</sub>-,  
-(CH<sub>2</sub>)<sub>0-5</sub>-NR<sup>A</sup>-SO<sub>2</sub>-(CH<sub>2</sub>)<sub>0-5</sub>-, -(CH<sub>2</sub>)<sub>0-5</sub>-SO<sub>2</sub>-NR<sup>A</sup>-(CH<sub>2</sub>)<sub>0-5</sub>-, -NR<sup>A</sup>-(CH<sub>2</sub>)<sub>0-2</sub>-,



$-\text{NR}^{\text{A}}-\text{CO}-\text{NR}^{\text{A}}-$ ,  $-\text{NR}^{\text{A}}-\text{CS}-\text{NR}^{\text{A}}-$ ,  $-\text{N}=\text{C}(-\text{SR}^{\text{A}})-\text{NR}^{\text{A}}-$ ,  $-\text{NR}^{\text{A}}\text{CSNR}^{\text{A}}\text{CO}-$ ,  
 $-\text{N}=\text{C}(-\text{SR}^{\text{A}})-\text{NR}^{\text{A}}\text{CO}-$ ,  $-\text{NR}^{\text{A}}-(\text{CH}_2)_{1-2}-\text{NR}^{\text{A}}-\text{CO}-$ ,  $-\text{NR}^{\text{A}}\text{CONR}^{\text{A}}\text{NR}^{\text{F}}\text{CO}-$ , or  
 $-\text{N}=\text{C}(-\text{NR}^{\text{A}}\text{R}^{\text{A}})-\text{NR}^{\text{A}}-\text{CO}-$ ,

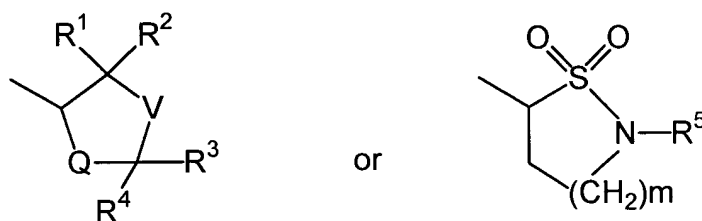
wherein  $\text{R}^{\text{A}}$  is each independently a hydrogen atom, an optionally substituted lower alkyl, an optionally substituted aryl, an optionally substituted aralkyl, an optionally substituted heteroaryl, or an optionally substituted heteroarylalkyl,

$\text{R}^{\text{F}}$  is a hydrogen atom or optionally substituted aryl,

W is an oxygen atom or a sulfur atom;

$\text{Z}^1$  is an optionally substituted arylene, optionally substituted heteroarylene, optionally substituted non-aromatic heterocycle-diyl, or optionally substituted cycloalkyl-diyl;

$\text{A}^1$  is a ring represented by the formula:



wherein  $\text{R}^1$  and  $\text{R}^2$  are both hydrogen atoms or taken together may form an oxygen atom or a sulfur atom;  $\text{R}^3$  and  $\text{R}^4$  are both hydrogen atoms or taken together may form an oxygen atom or a sulfur atom;  $\text{R}^5$  is a hydrogen atom or lower alkyl; Q and V are each independently  $-\text{O}-$ ,  $-\text{S}-$ ,  $-\text{CH}_2-$ , or  $-\text{NR}^{\text{B}}-$ , wherein  $\text{R}^{\text{B}}$  is a hydrogen atom or lower alkyl;

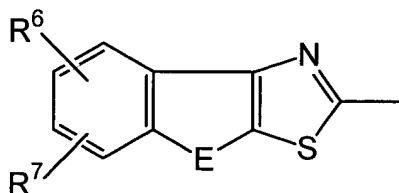
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m is 1, 2, or 3; and

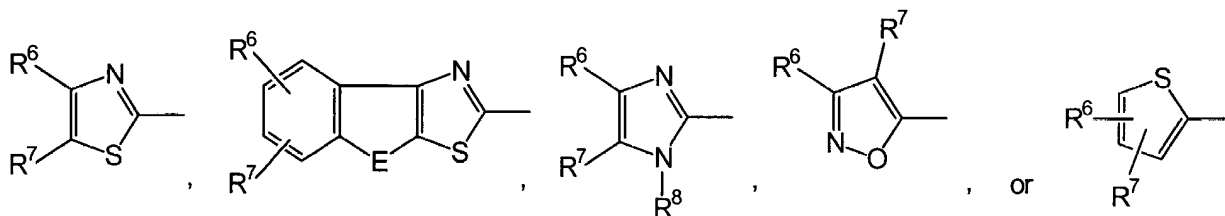
a broken line (---) represents the presence or absence of a bond.

71. A thrombopoietin receptor agonist composition according to claim 70, wherein  $X^1$  is an optionally substituted 5-member heteroaryl or a group represented by the formula:



wherein E is  $-(CH_2)_{1-3}-$ ,  $-O-CH_2-$ , or  $-S-CH_2-$ ;  $R^6$  and  $R^7$  are each independently a hydrogen atom, optionally substituted lower alkyl, carboxy, lower alkyloxycarbonyl, optionally substituted aminocarbonyl, optionally substituted thienyl, or optionally substituted phenyl.

72. A thrombopoietin receptor agonist composition according to claim 70, wherein  $X^1$  is a group represented by the formula:



wherein E is  $-(CH_2)_{1-3}-$ ,  $-O-CH_2-$ , or  $-S-CH_2-$ ;  $R^6$  and  $R^7$  are each independently a hydrogen atom, optionally substituted lower alkyl, carboxy, lower alkyloxycarbonyl, optionally substituted aminocarbonyl, optionally substituted thienyl, or optionally substituted phenyl;  $R^8$  is a hydrogen atom or lower alkyl.

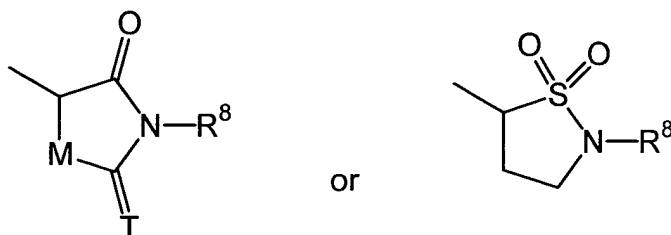
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73. A thrombopoietin receptor agonist composition according to any one of claims 70 to 72, wherein  $Y^1$  is  $-NHCO-$ ,  $-CONH-$ ,  $-NHCH_2-$ , or  $-NHSO_2-$ .

74. A thrombopoietin receptor agonist composition according to any one of claims 70 to 72, wherein  $Z^1$  is 1,4-phenylene.

75. A thrombopoietin receptor agonist composition according to of any one of claims 70 to 72, wherein  $A^1$  is a ring represented by the formula:



wherein  $R^8$  is a hydrogen atom or lower alkyl; M is  $-S-$ ,  $-O-$ ,  $-CH_2-$ , or  $-N(R^c)-$ ,

wherein  $R^c$  is a hydrogen atom or lower alkyl;

and T is an oxygen atom or a sulfur atom.

76. A thrombopoietin receptor agonist composition according to any one of claims 70 to 72, wherein the broken line represents the presence of a bond.

#### REMARKS

Applicants have amended the claims to use standard U.S. claim format, eliminate improper multiple dependencies, and clarify claim terms. Applicants cancelled all of the original claims and inserted new claims to eliminate any potential confusion regarding